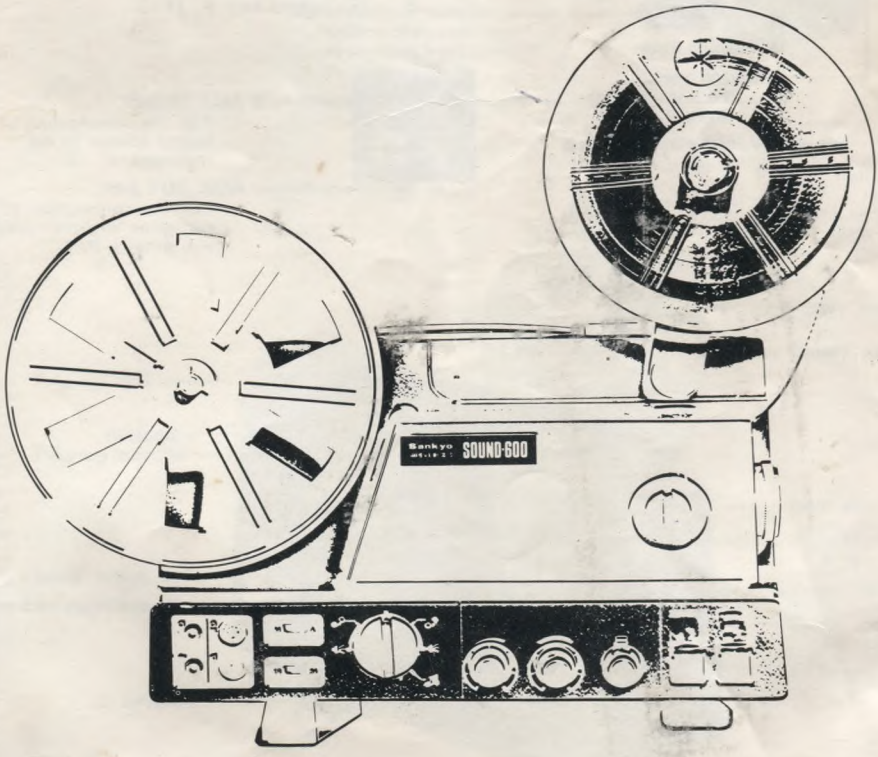
Sankyo

SOUND-600

INSTRUCTION MANUAL

SUPER 8 / SINGLE 8



IMPORTANT SAFEGUARDS

When using your Sankyo SOUND-600, basic safety precautions should always be followed, including the following:

1. Read and understand all instructions.
2. Close supervision is necessary when any appliance is used by or near children. Do no leave appliance unattended while in use.
3. Care must be taken as burns can occur from touching hot parts.
4. Do not operate appliance with a damaged cord or if the appliance has been dropped or damaged – until it has been examined by a qualified serviceman.
5. Do not let cord hang over edge of table or counter or touch hot surfaces.
6. If an extension cord is necessary, a cord with a suitable current rating should be used. Cords rated for less amperage than the appliance may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled.
7. Always unplug appliance from electrical outlet when not in use. Never yank cord to pull plug from outlet. Grasp plug and pull to disconnect.
8. Let appliance cool completely before putting away. Loop cord loosely around appliance when storing.
9. To protect against electrical shock hazards, do not immerse this appliance in water or other liquids.
10. To avoid electric shock hazard, do not disassemble this appliance, but take it to a qualified serviceman when some service or repair work is required. Incorrect reassembly can cause electric shock hazard when the appliance is used subsequently.
11. When storing the SOUND–600, avoid places with high temperature, high humidity and dust.
12. Do not open the rear cover.

SAVE THESE INSTRUCTIONS

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and

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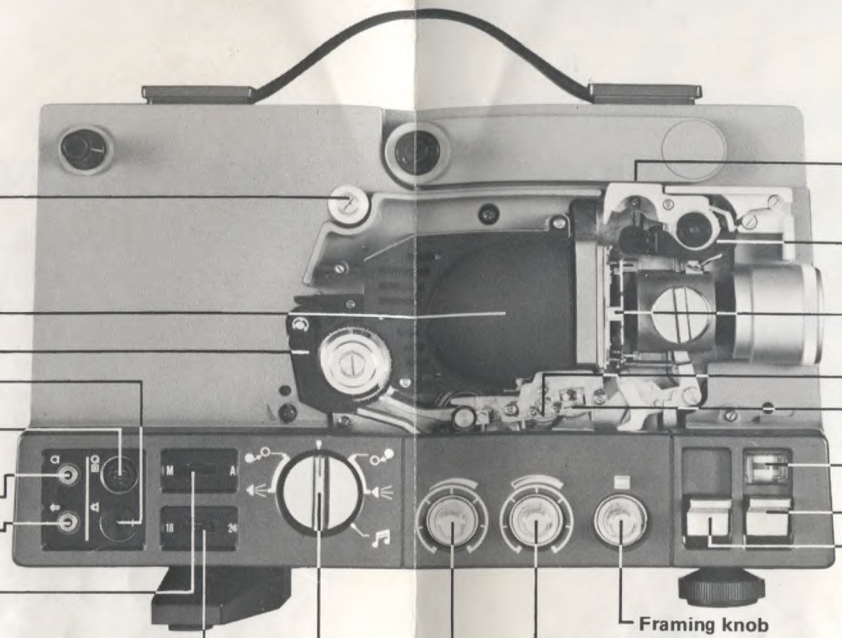
PARTS AND DESIGNATION



Film guide roller
For rewinding. P. 8

Light screen

Rear film guide

External speaker jack
P. 6

★ **DIN jack**
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Microphone jack

Earphone jack

Auto-manual selector
Selects between two recording level control systems. P. 13

Projection speed selector

Thread lever
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Loop setter guide

Pressure holder

Record/play head

Erase head

Level meter
P. 13

Record key

Safety key
To lock or unlock the record key. P. 11

Framing knob

Mixing knob
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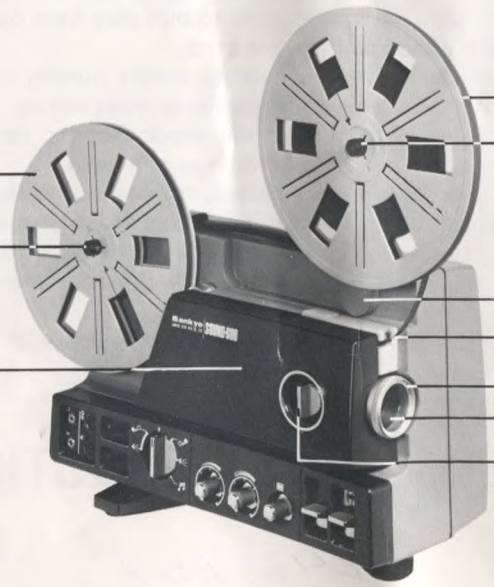
Volume control knob

Operation control switch
Reverse projection — motor backward — OFF — motor forward — silent projection — sound projection

★ **AUX IN jack**
For the connection of sound source to be recorded. P. 12

AUX OUT jack
For the connection of an earphone or other playback equipment. P. 6



Supply reel

Supply spindle

Take-up reel

Take-up spindle

Reel arm

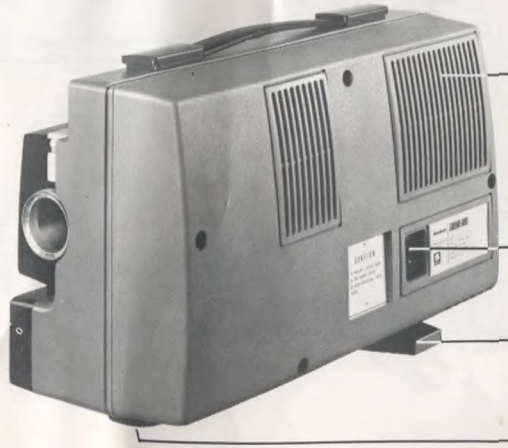
Auto-load slot
P. 4

Lamp house cover

Zoom ring

Zoom lens
f = 15—25mm

Focusing knob



Speaker

Power input socket

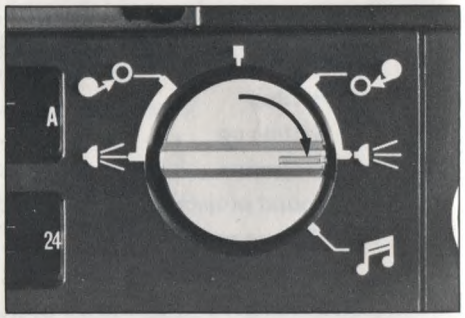
Stand

Elevation control stand
P. 2

SETTING UP

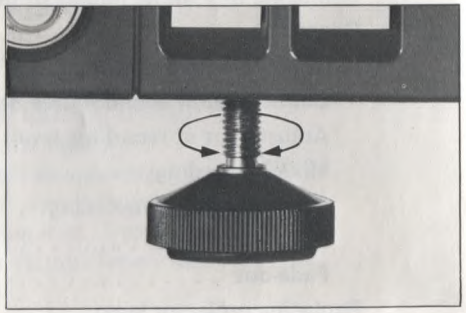
1. Connect the AC power cord.

2. Set the operation control switch at ◀≡ .



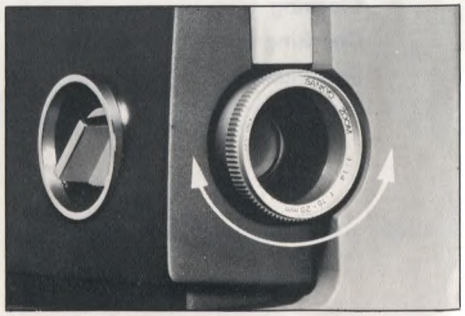
3. Position the projector so that the projected frame is in the center of the screen.

The height can be fine-adjusted by turning the elevation control stand.



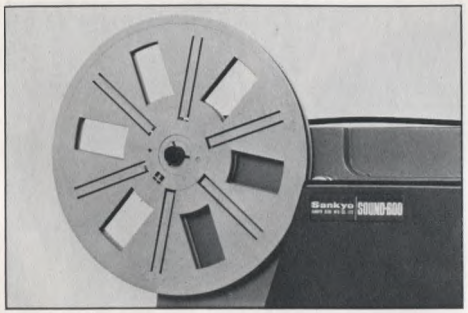
4. Adjust the picture size by turning the zoom ring.

If you cannot get the desired picture size with this adjustment, vary the distance between the projector and screen.

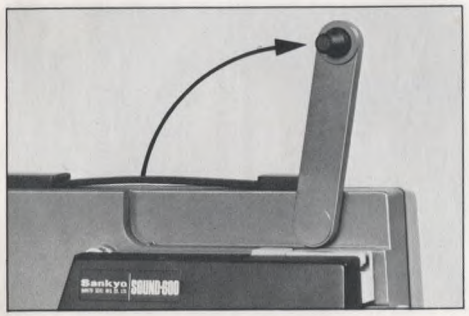


THREADING

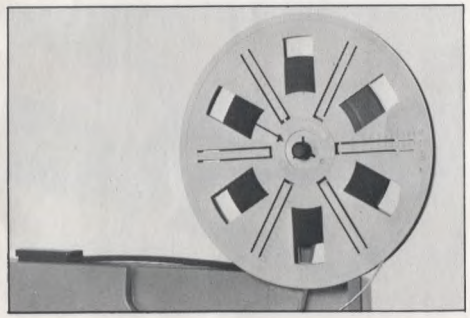
1. Connect the AC power cord.
2. Set an empty reel on the take-up spindle.



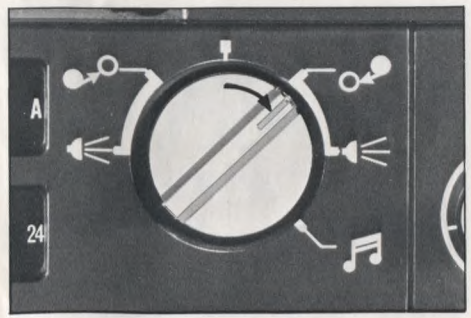
3. Lift the reel arm.



4. Load the film reel on the supply spindle.

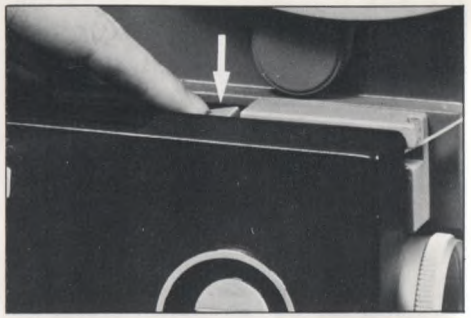


5. Set the operation control switch to the motor forward position ○◀ .



6. Press down the thread lever lightly until it locks.
7. Insert the film tip into the auto-load slot.

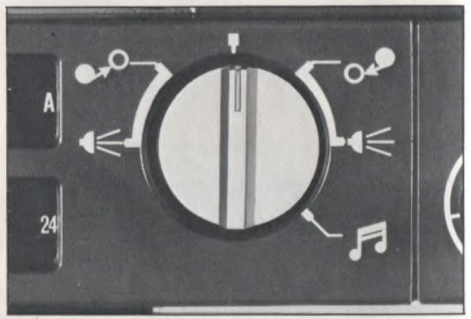
The film will be threaded automatically and wound on the take-up reel.



8. Set the operation control switch to OFF(▼).

The thread lever will be automatically released. You can set the operation control switch at ◀≡ directly to start projection. This will also release the thread lever.

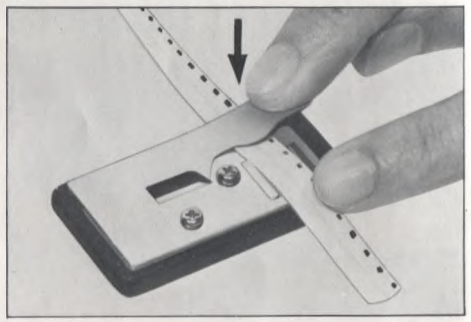
Do not move the operation control switch in the middle of automatic film threading. Leave it in position ○◀● . If the film threading is not completed in about 6 seconds, turn OFF the operation control switch and open the lamp house cover to check the film.



To make automatic threading more smooth:

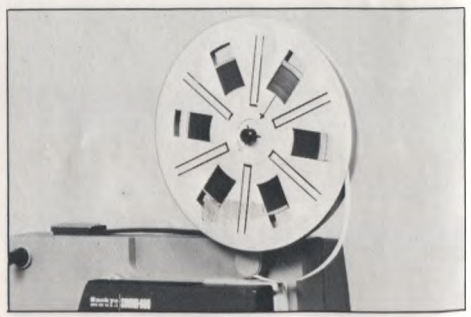
1. Shape the end of film with the cutter provided.

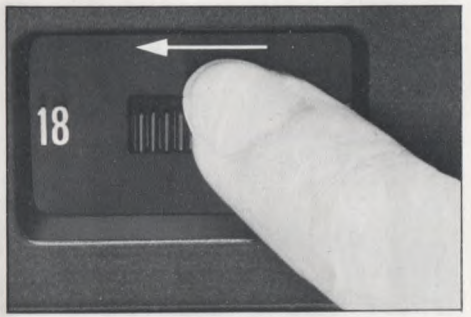
If the film tip is bent or the perforations are broken, threading will not be smooth.



2. Fit about 20" (50cm) of white film leader at the start of your film.

The film is usually provided with a leader. If not, fit one to protect your film.
The white leader should slightly curl in the direction of the film take-up as shown.



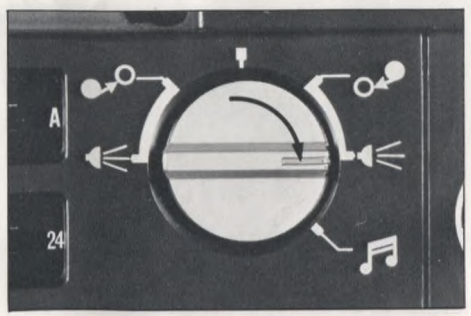


SETTING UP

1. Connect the AC power cord.
2. Adjust the projecting position. (See p. 2)
3. Thread the film. (See p. 3)
4. Set the speed selector to the desired position.

The two projection speeds, 18 and 24 frames per second, are always accurate because of the electronically controlled DC motor used.
There is no need for fine adjustment.

Do not move the speed selector during projection.



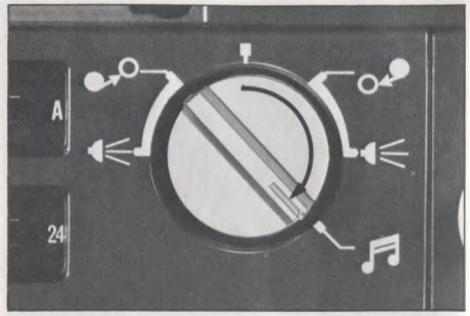
PROJECTION

1. Set the operation control switch at ◀≡ .

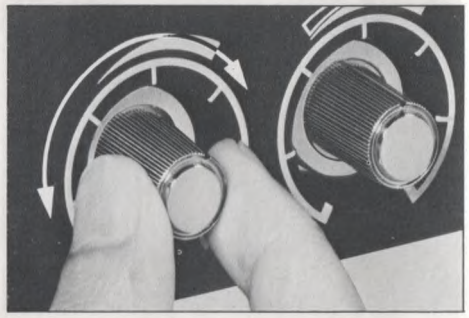
The volume control knob should be set at minimum.

SOUND PROJECTION

1. Set the operation control switch at ♫ .



2. Adjust the sound level with the volume control knob.



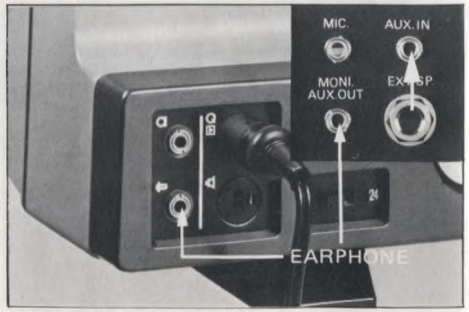
3. If you want to use an external speaker, connect it to the speaker jack (◀) or EXT SP.

Use an external speaker with an impedance of 4 to 8Ω. When an external speaker is plugged in, the built-in speaker will be disconnected.
Do not short-circuit the speaker circuit.

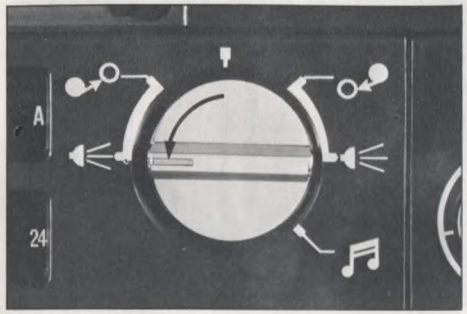
4. To hear sound through an audio system, connect the SOUND-600 to it.

If your SOUND-600 has a DIN jack, connect to the amplifier's DIN jack; if it has pin jacks, connect the AUX OUT to the amplifier's AUX IN or LINE IN jack.

5. To hear sound through an earphone, plug it into the earphone jack (⇦) or AUX OUT jack.



The SOUND-600 uses a magnetic recording and playback system. The optical sound track cannot be heard with this projector.

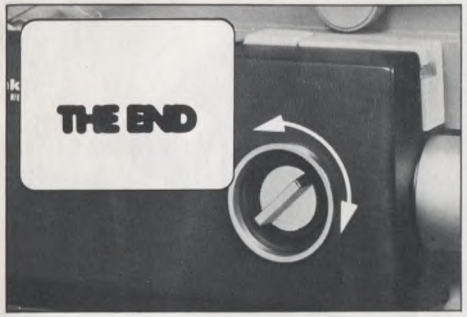


REVERSE PROJECTION

1. Set the operation control switch at the left ◀.

Turn the switch in the order ▮ → ●◤ → ◀. Sound cannot be heard in reverse projection.

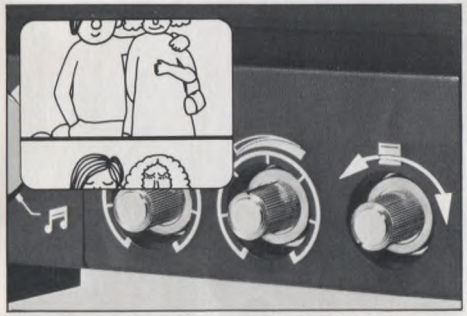
When you change the mode from forward projection to reverse projection or vice versa, keep the operation control switch in OFF position (▮) for a few seconds before going to a new mode.



ADJUSTING PICTURE

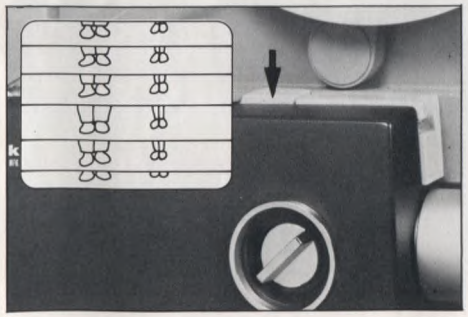
1. If it is out of focus . . .

- Focus with the focusing knob.



2. If a frame line can be seen . . .

- Adjust by turning the framing knob.



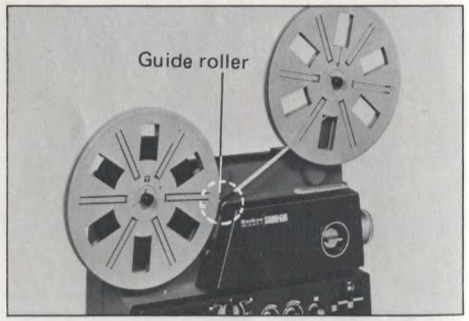
3. If scenes are unstably flowing upward or downward . . .

- Press the thread lever several times.

If there is still something wrong, the loop of the film may be incorrect. Stop projecting, and open the lamp house cover. Pressing down the right end of the loop setter guide, correct the film loop.

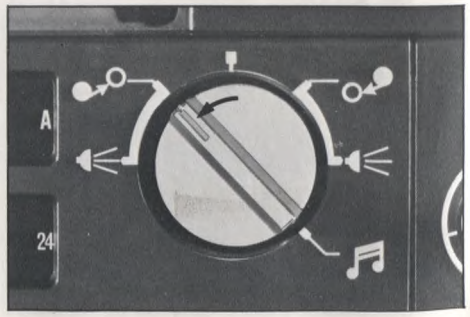
REWINDING

1. Wind the end of film on the take-up reel onto the supply reel.

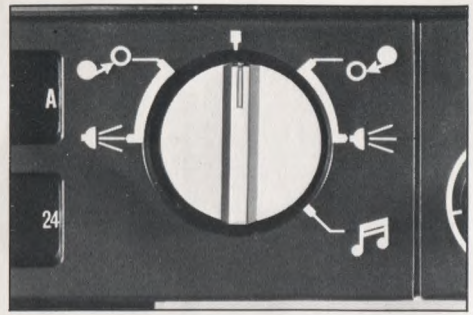


2. Set the operation control switch to the motor reverse position ●←○.

Run the film over the guide roller.

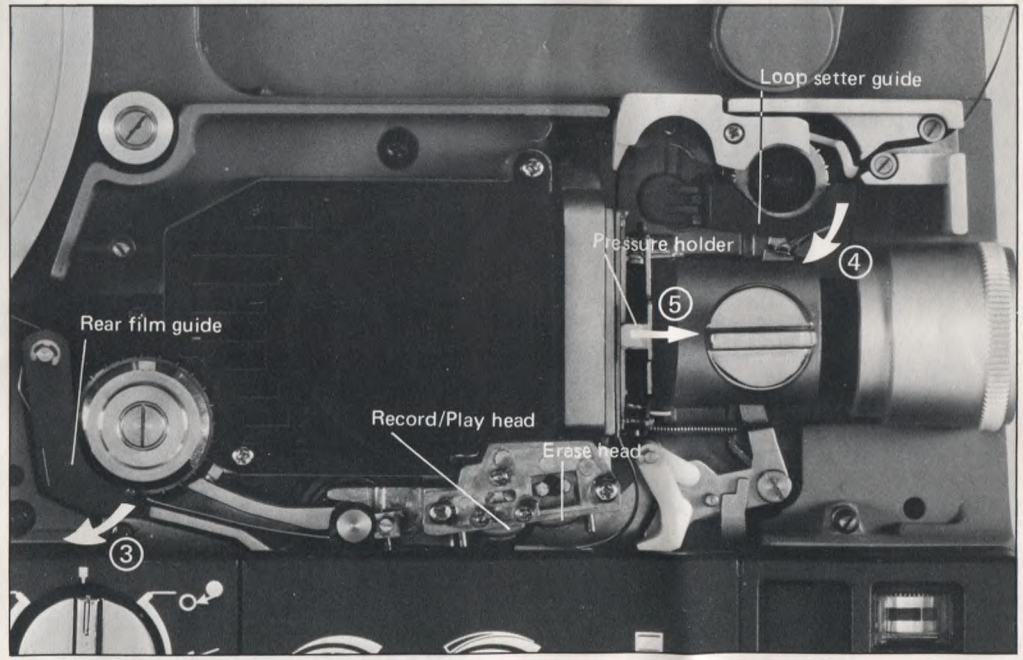


REMOVING FILM IN THE MIDDLE OF PROJECTION



1. Set the operation control switch at OFF (▮).

2. Remove the lamp house cover.
The light screen may be very hot; be careful.
3. Move the rear film guide to the left and take out a portion of film near the heads.
4. Move down the loop setter guide and take out the film from there.
5. Release the pressure holder and remove the film.
6. Replace the pressure holder.

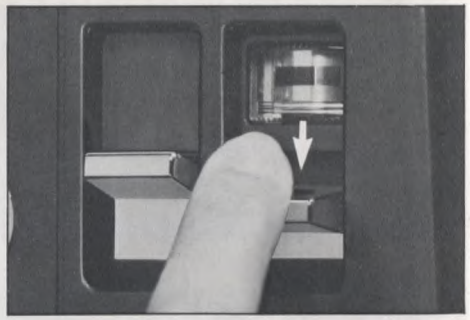


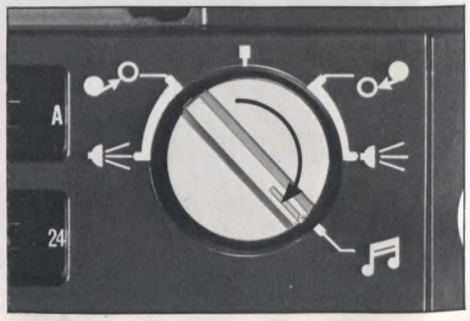
RECORDING

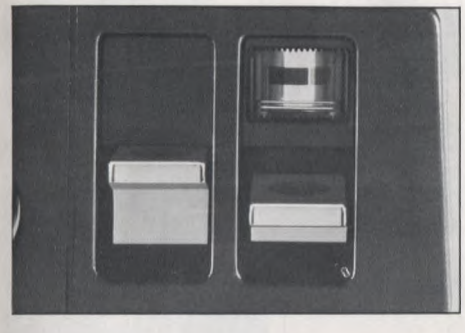
BASIC OPERATION

1. Connect the AC power cord.
2. Thread a movie film with a magnetic coating.
3. Connect a sound source to the SOUND-600. (See p. 12)
4. Adjust the recording level. (See p. 13)
5. Leave the mixing knob in fully clockwise position.

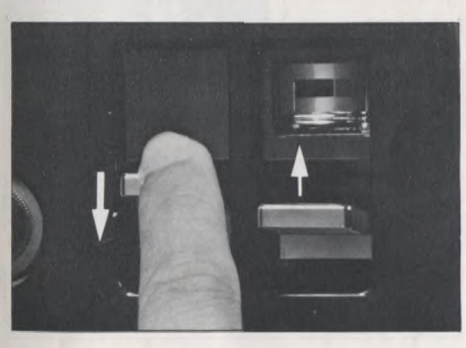
6. Holding down the record key, set the operation control switch at ♫ .







The recording indicator will now light up, the level meter will be illuminated and recording will start.



7. To stop recording, press down the safety key or set the operation control switch at ◀≡ .

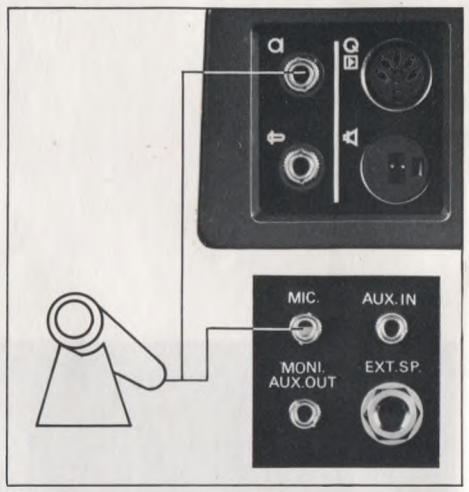
When starting or stopping recording while you are projecting with sound, use the safety key. Press the safety key and then the record key. When you release only the safety key, the record key will be locked. To stop recording press the safety key.

To make a new recording, you do not have to erase the sound previously recorded because erasing is automatic. If you want to only erase, disconnect the sound sources and operate the projector in the record mode.

CONNECTION OF SOUND SOURCE DEVICES

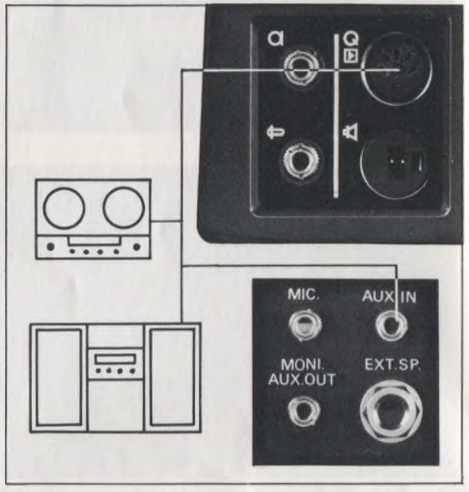
1. Microphone

Connect to the ⍺ or MIC jack.



2. Audio system, record player, tape recorder, etc.

Connect to the DIN jack using a DIN cord or connect the projector's AUX IN jack to the source device's LINE OUT or REC jack.

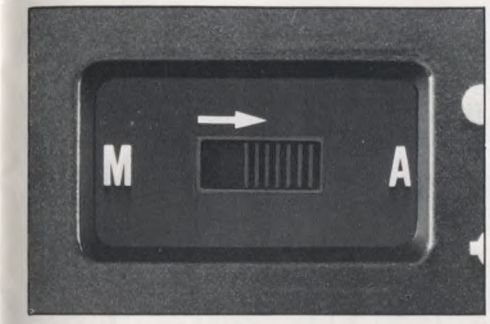


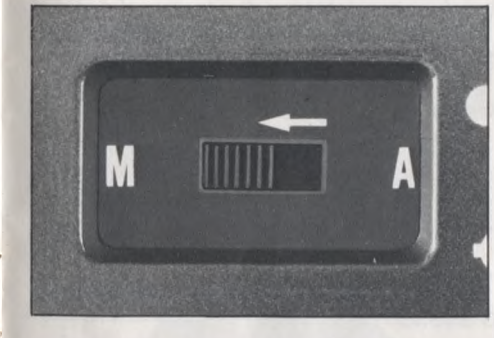
CAUTION:

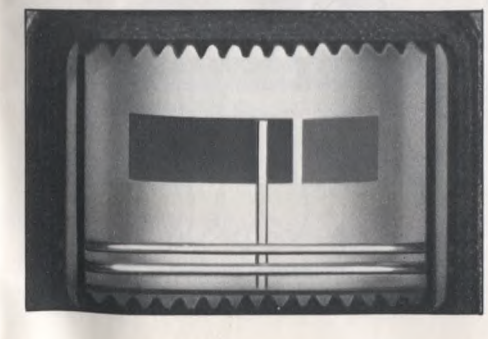
The Sankyo SOUND-600 was designed to be able to make good recordings from very many electronical sound sources. However, with some connection cords, especially with resistances, it may fail to make recordings if connected to the AUX IN jack. In such a case, connect the connection cord to the MIC jack or use a non-resistance connection cord. If the output level of the sound source is extremely different from the specified input level of the projector's jacks, adjust the recording level with the projector's volume control and source device's output level control, referring to the projector's level meter.

Input specifications

MIC	: input impedance	680 ohms
	input level	−70dB
AUX IN	: input impedance	1M ohms
	input level	−18dB







ADJUSTMENT OF RECORDING LEVEL

1. Automatic level control (ALC)

- Set the auto-manual selector to A.

The recording level will be automatically kept at the optimum level.

2. Manual level control

- Set the auto-manual selector to M.
- Holding down the record key, set the operation control switch at ♬.
- Adjust the recording level with the volume control knob.

Manual level control with the level meter lets you record at your preferred level.
The needle deflects depending on the source signal level. The optimum recording is obtained when the level is adjusted so that the needle deflects up to the border line between two color zones for the highest level signal that comes in. If it is impossible to keep the level below the limit with only the projector's volume control, then adjust with the source device's level control.

If you want to adjust the recording level before starting projection, hold down the record key. The level meter will be illuminated and ready to deflect.

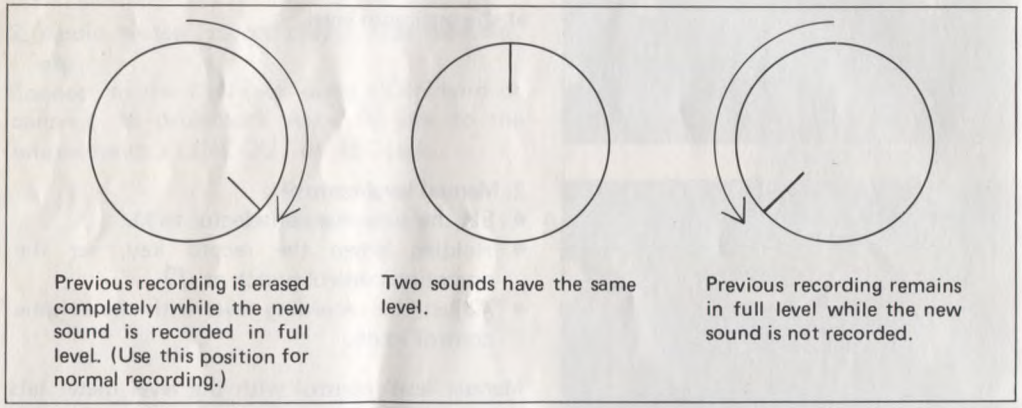
MIXED RECORDING

Two sound signals, one from a microphone and one from an external source connected to the DIN jack (or AUX IN jack), can be recorded simultaneously. For recording, follow the "BASIC OPERATION". Balancing the levels of the two signals should be done on the source devices.

SOUND-ON-SOUND RECORDING

A new sound can be superimposed on the sound recorded previously. A mixing knob is provided to control the erase level of the first recording and the recording level of the second recording. You can enjoy versatile recording techniques using this feature.

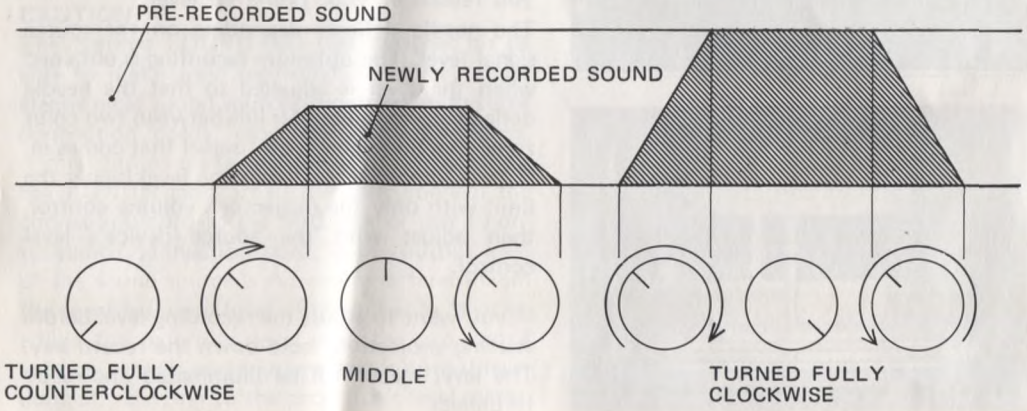
Enjoy personalized recordings; for example, while viewing a movie with background music already recorded on the film, add a commentary by speaking into a microphone.

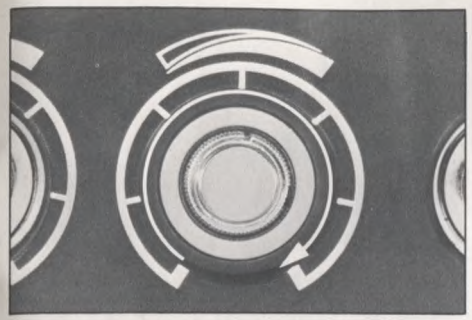


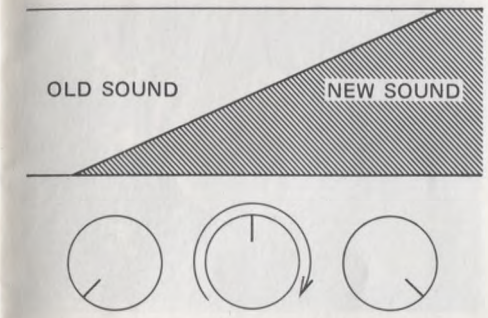
Previous recording is erased completely while the new sound is recorded in full level. (Use this position for normal recording.)

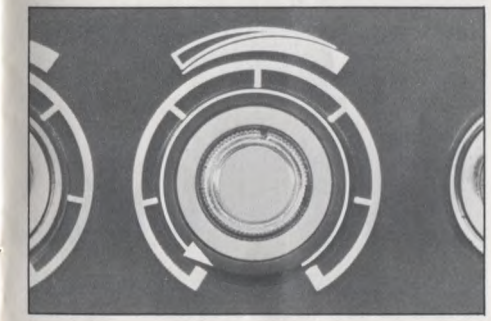
Two sounds have the same level.

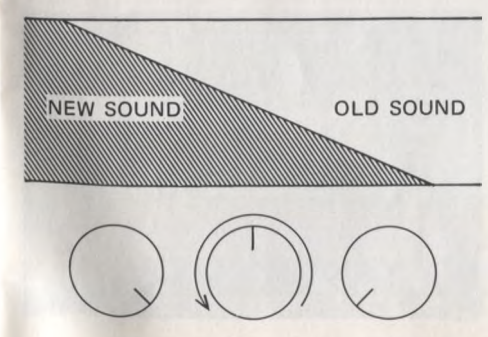
Previous recording remains in full level while the new sound is not recorded.











FADE-IN

It is a simple application of the superimposed recording facility. First, set the mixing knob fully counterclockwise. Then turn it clockwise slowly. The new sound will be recorded with the level increasing gradually from zero. If sound has been previously recorded, the old sound will fade out as the new sound fades in.

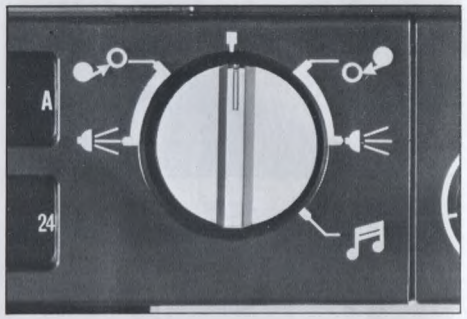
FADE-OUT

This is the reverse of fade-in. Set the mixing knob fully clockwise and then turn it counterclockwise slowly.

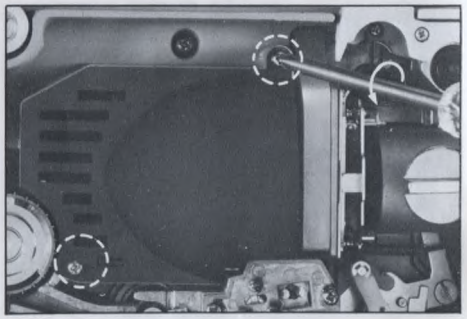
The sound being recorded will be gradually faded out. If sound has been previously recorded, the old sound will fade in as the new sound fades out.

REPLACING PROJECTOR LAMP

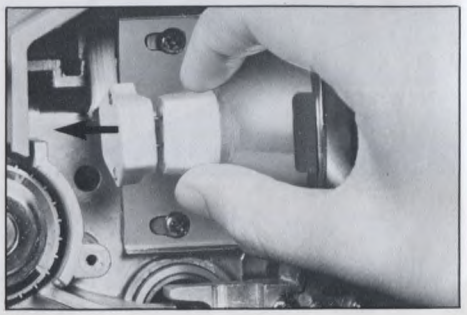
1. Set the operation control switch at OFF ( ).
2. Unplug the power cord.
3. Remove the lamp house cover.
4. Wait for a while until the light screen cools down.

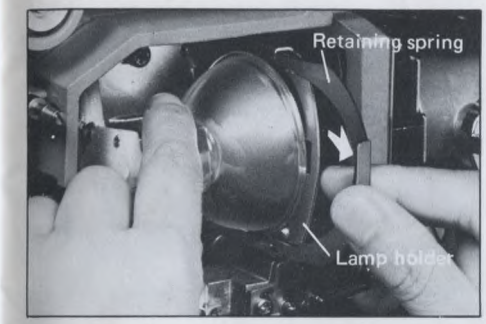


5. Remove the two light screen fixing screws.

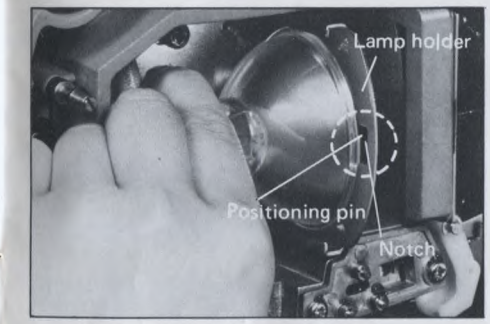


6. Holding the base of the lamp, remove the lamp from the socket.

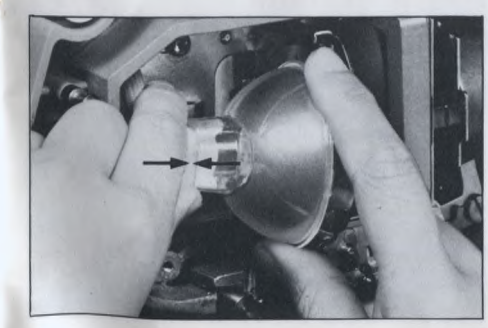




7. Holding the lamp, remove the retaining spring by pulling it toward you.



8. Line up the notch in the lamp holder with the positioning pin of a new lamp and replace the retaining spring.



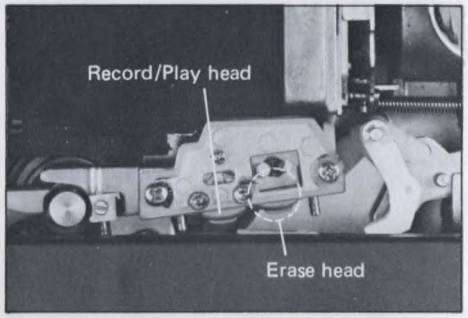
9. Plug the lamp into the socket.
10. Replace the light screen.

Be careful not to touch the lamp bulb or reflector surface.
Do not plug in the power cord before replacing the light screen.

CLEANING

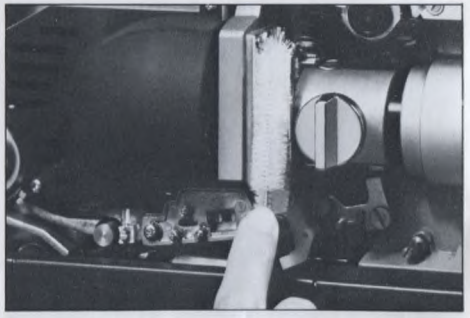
CLEANING THE HEADS

Dirty heads will produce noise and unstable sound.
Always keep the heads clean.
Gently wipe the heads with a stick with cotton or a soft rag (soaked in alcohol if they are very dirty). Do not bring metal objects close to or in contact with the heads.



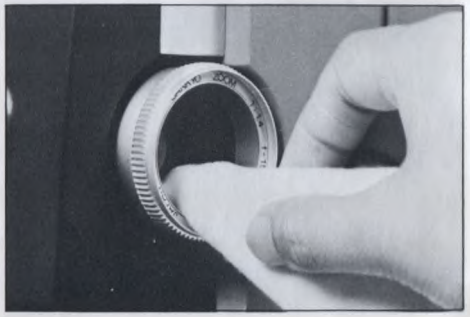
CLEANING THE FILM PASSAGE

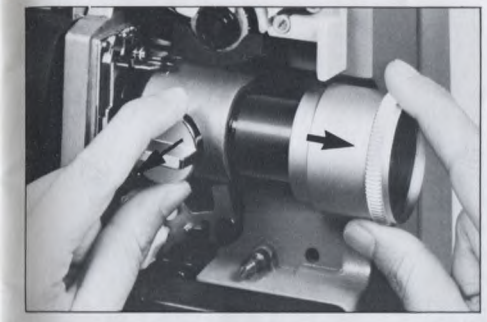
If dust sticks in the film path, particularly at the aperture, not only will the quality of picture and sound deteriorate, but the film may be scratched.
Clean the area with the brush provided. Open the pressure holder to clean the aperture.



CLEANING THE LENS

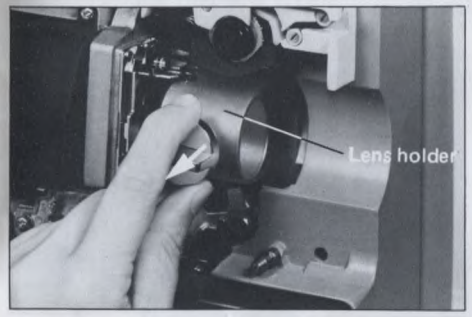
If the lens becomes dirty with oil or fingerprints, wipe it carefully with a soft cloth dampened with alcohol or ether.





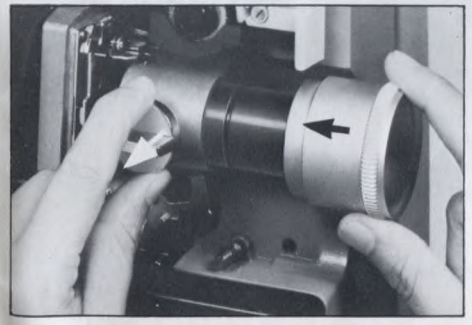
When removing lens:

- Remove the lamp house cover.
- Pull the focusing knob toward you to remove the lens.



When replacing the lens:

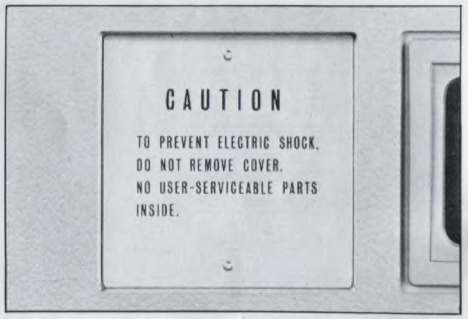
- Pull the focusing knob toward you.



- Line up the lens holder pin with the groove in the lens.
- Insert the lens into place.
- Turn the focusing knob to see if the lens moves in and out correctly. If not, move the lens back and forth slightly to let it engage with the focusing knob.

CHECKING VOLTAGE SETTING

Your projector is set only for the area of 117V so that you can not use it in the area of other than 117V.



SPECIFICATIONS

Film	:Super-8, Single-8
Projection lens	: F1.4, f=15—25mm zoom lens
Projection lamp	: 12V/100W halogen lamp with dichroic mirror
Projection speed	: 18 and 24 frames per second (automatically maintained at an accurate speed)
Threading	: Automatic
Projecting	: Forward and reverse
Film capacity	: 600ft (180m) for Super-8 film 900ft (270m) for Single-8 film
Power supply	: AC 117V, 50/60Hz
Power consumption	: 170W
Motor	: Electronically controlled DC magnet motor
Record/playback system	: Magnetic
Amplifier	: 1 IC, 12 silicon transistors, 6 silicon diodes
Output	: 2W (EXT. 4W)
Output jacks	: Speaker, earphone, DIN/AUX OUT
Input jacks	: Microphone, DIN/AUX IN (Mixed recording is possible from both jacks)
Recording level control	: ALC and manual control
Recording indication	: Level meter and pilot lamp
Mixing	: Available
Sound-on-sound	: Available
Fade in/fade out	: Available
Built-in speaker	: 4" (10cm), 8Ω
Microphone	: Dynamic 500Ω
Earphone	: Magnetic 8Ω
Dimensions	: 9-1/4"(H) x 13-5/8"(W) x 6-1/2"(D) (234mm x 347mm x 165mm)
Weight	: 17.2 lbs. (7.8 kg)
Standard accessories	: Power cord, 600ft auto-reel, cleaning brush, microphone, earphone, film cutter

Design and specifications subject to change without notice.

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